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THANGAVELU, KANDASAMY	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/637,206	OROFINO, DONALD P.	
	Examiner	Art Unit	
	KANDASAMY THANGAVELU	2123	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *26 November 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-17,19-34,36-51,53-70 and 72-92* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-17,19-34,36-51,53-70 and 72-92* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *07 August 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. This communication is in response to the Applicant's Response mailed on November 26, 2007. Claims 1, 19, 36, 53 and 72-76 were amended. Claims 18, 35, 52, 71 and 93 were canceled. Claims 1-17, 19-34, 36-51, 53-70 and 72-92 of the application are pending. This office action is made non-final.

Claim Objections

2. The following is a quotation of 37 C.F.R § 1.75 (d)(1):

> The claim or claims must conform to the invention as set forth in the remainder of the specification and terms and phrases in the claims must find clear support or antecedent basis in the description so that the meaning of the terms in the claims may be ascertainable by reference to the description.

3. Claim 75 is objected to because of the following informalities:

Claim 75, Line 3, "the dynamic system provided in a simulation application and configured" appears to be incorrect and it appears that it should be "the dynamic system configured", as the dynamic system refers to the physical system and it cannot be provided in a simulation application.

Claim 75, Line 8, "data collection from the dynamic system model" appears to be incorrect and it appears that it should be "data collection from the dynamic system", as the claim refers to collection of data generated by a dynamic system and not a model of the system.

Appropriate corrections are required.

Claim Rejections - 35 USC § 101

4. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

5. Claims 72-75 and 76-92 are rejected under 35 U.S.C. 101 because the claimed inventions are directed to non-statutory subject matter.

5.1 Claims 72-75 deal with a system for controlling collection of data generated by a dynamic system model or a dynamic system. However, all the elements listed as comprising the system are all software elements only. A system with only software elements will not be operational and cannot be patented under 35 USC 101. Therefore, these claims should include an electronic device comprising a central processing unit, a memory, one or more storage devices and a display device, for them to be patentable.

5.2 Claim 76 refer to "computer-readable medium for use in a simulation environment on an electronic device, the computer-readable medium holding instructions executable using the electronic device for performing a method of controlling collection of data generated by a dynamic system model". The medium is not defined in the specification. Any computer-readable medium holding instructions executable using the electronic device is not patentable

since the medium could include carrier wave. Only a computer readable **storage or recording** medium holding instructions executable using the electronic device for performing a method of controlling collection of data generated by a dynamic system model is patentable..

Claims rejected, but not specifically addressed are rejected because of their dependence on rejected claims.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.
>
> (e) the invention was described in-
> (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or
> (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

7. Claims 1, 5, 36, 72, 74, 76 and 78 are rejected under 35 U.S.C. § 102 (a) and 102(e) as being anticipated by **McLean et al.** ("Applying temporal data bases to HLA data collection and analysis", 1998 Winter simulation conference).

7.1 **McLean et al.** teaches Applying temporal data bases to HLA data collection and analysis. Specifically, as per claim 1, **McLean et al.** teaches in a simulation environment, a method for controlling collection of data generated by a dynamic system model (Abstract, Para 1, L6-15), comprising:

providing the dynamic system model (Abstract, Para 1, L4-5);

providing a controller system separate from the dynamic system model, the controller system including at least one controller and two or more data modules, the two or more data modules being communicatively coupled to collect data from the dynamic system model (Abstract, Para 1, L13-15; Page 827, CL1, Para 4, L1 to CL2, Para 1, L12; Page 828, CL1, Para 1, L3-8; Page 828, CL1, Para 2, L1-4; Page 828, CL2, Para 7, L1-7; Page 829, CL1, Para 2);

activating the dynamic system model, thereby generating data (Abstract, Para 1, L6-7; Para 2, L2-4; Page 828, CL2, Para 7, L1-7); and

synchronizing data collection from the dynamic system model by the two or more data modules using the at least one controller (Page 827, CL2, Para 2, L1-6; Page 828, CL1, Para 2, L1-4; Page 829, CL1, Para 2).

Per claim 5: **McLean et al.** teaches executing a suspend function to pause collection of data while the dynamic system continues to operate (Page 831, CL1, Para 1, L1-4).

7.2 As per claim 36, **McLean et al.** teaches in a simulation environment, a method for controlling collection of data generated by a dynamic system model (Abstract, Para 1, L6-15), comprising:

providing the dynamic system model (Abstract, Para 1, L4-5);

providing a controller system separate from the dynamic system model, the controller system including at least one controller and two or more data modules, the two or more data modules being communicatively coupled to collect data from the dynamic system model (Abstract, Para 1, L13-15; Page 827, CL1, Para 4, L1 to CL2, Para 1, L12; Page 828, CL1, Para 1, L3-8; Page 828, CL1, Para 2, L1-4; Page 828, CL2, Para 7, L1-7; Page 829, CL1, Para 2);

activating the dynamic system model, thereby generating data (Abstract, Para 1, L6-7; Para 2, L2-4; Page 828, CL2, Para 7, L1-7); and

synchronizing data collection from the dynamic system model by the two or more data modules using the at least one controller (Page 827, CL2, Para 2, L1-6; Page 828, CL1, Para 2, L1-4; Page 829, CL1, Para 2); and

executing a suspend function to pause collection of data while the dynamic system continues to operate (Page 3, Para 0040, L5-7).

7.3 As per claim 72, **McLean et al.** teaches in a simulation environment, a system for controlling collection of data generated by a dynamic system model (Abstract, Para 1, L6-15), comprising:

the dynamic system model provided in a simulation application and configured to generate the data (Abstract, Para 1, L4-5);

a controller system separate from the dynamic system model, the controller system including at least one controller and two or more data modules, the two or more data modules being communicatively coupled to collect data from the dynamic system model (Abstract, Para

1, L13-15; Page 827, CL1, Para 4, L1 to CL2, Para 1, L12; Page 828, CL1, Para 1, L3-8; Page 828, CL1, Para 2, L1-4; Page 828, CL2, Para 7, L1-7; Page 829, CL1, Para 2); and

wherein the data collection from the dynamic system model by the two or more data modules is synchronized using the at least one controller (Page 827, CL2, Para 2, L1-6; Page 828, CL1, Para 2, L1-4; Page 829, CL1, Para 2).

7.4 As per claim 74, **McLean et al.** teaches in a simulation environment, a system for controlling collection of data generated by a dynamic system model (Abstract, Para 1, L6-15), comprising:

the dynamic system model provided in a simulation application and configured to generate the data (Abstract, Para 1, L4-5);

a controller system separate from the dynamic system model, the controller system including at least one controller and two or more data modules, the two or more data modules being communicatively coupled to collect data from the dynamic system model (Abstract, Para 1, L13-15; Page 827, CL1, Para 4, L1 to CL2, Para 1, L12; Page 828, CL1, Para 1, L3-8; Page 828, CL1, Para 2, L1-4; Page 828, CL2, Para 7, L1-7; Page 829, CL1, Para 2); and

wherein the data collection from the dynamic system model by the two or more data modules is synchronized using the at least one controller (Page 827, CL2, Para 2, L1-6; Page 828, CL1, Para 2, L1-4; Page 829, CL1, Para 2); and

wherein a suspend function is provided to pause collection of data while the dynamic system continues to operate (Page 831, CL1, Para 1, L1-4).

7.5 As per claims 76 and 80, these are rejected based on the same reasoning as claims 1 and 5, supra. Claims 76 and 80 are computer medium claims reciting the same limitations as claims 1 and 5 supra, as taught throughout by **McLean et al.**

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.

9. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

10. Claims 2, 19, 22, 37, 73 and 77 are rejected under 35 U.S.C. 103(a) as being unpatentable over **McLean et al.** ("Applying temporal data bases to HLA data collection and analysis", 1998 Winter simulation conference) in view of **Guiberson et al.** (U.S. Patent 6,088,029).

10.1 As per claim 2, **McLean et al.** teaches the method of claim 1. **McLean et al.** does not expressly teach executing a snapshot function to direct at least one of the two or more data modules to freeze a display of data collected while the dynamic system model continues to execute and the data continues to be collected. **Guiberson et al.** teaches executing a snapshot function to direct at least one of the two or more data modules to freeze a display of data collected while the dynamic system model continues to execute and the data continues to be collected (Fig. 4, Item 410; CL1, L22-29; CL4, L58-60). It would have been obvious to one of ordinary skill in the art at the time of Applicant's invention to modify the method of **McLean et al.** with the method of **Guiberson et al.** that included executing a snapshot function to direct at least one of the two or more data modules to freeze a display of data collected while the dynamic system model continues to execute and the data continues to be collected, because that would allow adjusting the parameters that control acquisition of data (CL1, L36-38).

10.2 As per claim 19, **McLean et al.** teaches in a simulation environment, a method for controlling collection of data generated by a dynamic system model (Abstract, Para 1, L6-15), comprising:

providing the dynamic system model (Abstract, Para 1, L4-5);

providing a controller system separate from the dynamic system model, the controller system including at least one controller and two or more data modules, the two or more data modules being communicatively coupled to collect data from the dynamic system model (Abstract, Para 1, L13-15; Page 827, CL1, Para 4, L1 to CL2, Para 1, L12; Page 828, CL1, Para 1, L3-8; Page 828, CL1, Para 2, L1-4; Page 828, CL2, Para 7, L1-7; Page 829, CL1, Para 2);

activating the dynamic system model, thereby generating data (Abstract, Para 1, L6-7; Para 2, L2-4; Page 828, CL2, Para 7, L1-7); and

synchronizing data collection from the dynamic system model by the two or more data modules using the at least one controller (Page 827, CL2, Para 2, L1-6; Page 828, CL1, Para 2, L1-4; Page 829, CL1, Para 2).

McLean et al. does not expressly teach executing a snapshot function to direct at least one of the two or more data modules to freeze a display of data collected while the dynamic system model continues to execute and the data continues to be collected. **Guiberson et al.** teaches executing a snapshot function to direct at least one of the two or more data modules to freeze a display of data collected while the dynamic system model continues to execute and the data continues to be collected (Fig. 4, Item 410; CL1, L22-29; CL4, L58-60).

Per claim 22: **McLean et al.** teaches executing a suspend function to pause collection of data while the dynamic system model continues to operate (Page 831, CL1, Para 1, L1-4).

10.3 As per claim 37, **McLean et al.** teaches the method of claim 36. **McLean et al.** does not expressly teach executing a snapshot function to direct at least one of the two or more data modules to freeze a display of data collected while the dynamic system model continues to execute and the data continues to be collected. **Guiberson et al.** teaches executing a snapshot function to direct at least one of the two or more data modules to freeze a display of data

collected while the dynamic system model continues to execute and the data continues to be collected (Fig. 4, Item 410; CL1, L22-29; CL4, L58-60).

10.4 As per claim 73, **McLean et al.** teaches in a simulation environment, a system for controlling collection of data generated by a dynamic system model (Abstract, Para 1, L6-15), comprising:

the dynamic system model provided in a simulation application and configured to generate the data (Abstract, Para 1, L4-5);

a controller system separate from the dynamic system model, the controller system including at least one controller and two or more data modules, the two or more data modules being communicatively coupled to collect data from the dynamic system model (Abstract, Para 1, L13-15; Page 827, CL1, Para 4, L1 to CL2, Para 1, L12; Page 828, CL1, Para 1, L3-8; Page 828, CL1, Para 2, L1-4; Page 828, CL2, Para 7, L1-7; Page 829, CL1, Para 2); and

wherein the data collection from the dynamic system model by the two or more data modules is synchronized using the at least one controller (Page 827, CL2, Para 2, L1-6; Page 828, CL1, Para 2, L1-4; Page 829, CL1, Para 2).

McLean et al. does not expressly teach that a snapshot function is provided that directs at least one of the two or more data modules to freeze a display of data collected while the model dynamic system continues to execute and the data continues to be collected. **Guiberson et al.** teaches that a snapshot function is provided that directs at least one of the two or more data

modules to freeze a display of data collected while the model dynamic system continues to execute and the data continues to be collected (Fig. 4, Item 410; CL1, L22-29; CL4, L58-60).

10.5 As per claim 77, it is rejected based on the same reasoning as claim 2, supra. Claims 77 is a computer medium claims reciting the same limitations as claims 2, as taught throughout by **McLean et al.** and **Guiberson et al.**

11. Claims 3, 20, 21, 23-25,31-34, 38 and 78 are rejected under 35 U.S.C. 103(a) as being unpatentable over **McLean et al.** ("Applying temporal data bases to HLA data collection and analysis", 1998 Winter simulation conference) in view of **Guiberson et al.** (U.S. Patent 6,088,029), and further in view of **Eryilmaz et al.** (U.S. Patent Application 2003/0122826).

11.1 As per claim 3, **McLean et al.** and **Guiberson et al.** teach the method of claim 2. **Guiberson et al.** teaches that data continues to be collected without updating the display (Fig. 4, Item 410 and 415; CL1, L22-29; CL4, L58-60).

McLean et al. and **Guiberson et al.** do not expressly providing the display of data collected while data continues to be collected. **Eryilmaz et al.** teaches providing the display of data collected while data continues to be collected (Page 4, Para 0041, L5-7). It would have been obvious to one of ordinary skill in the art at the time of Applicant's invention to modify the method of **McLean et al.** and **Guiberson et al.** with the method of **Guiberson et al.** that included providing the display of data collected while data continues to be collected, because that would allow viewing the data in the model window of the display (Page 4, para 0041, L5-7).

11.2 As per claim 20, **McLean et al.** and **Guiberson et al.** teach the method of claim 19. **Guiberson et al.** teaches that data continues to be collected without updating the display (Fig. 4, Item 410 and 415; CL1, L22-29; CL4, L58-60).

McLean et al. and **Guiberson et al.** do not expressly providing the display of data collected while data continues to be collected. **Eryilmaz et al.** teaches providing the display of data collected while data continues to be collected (Page 4, Para 0041, L5-7).

Per claim 21: **McLean et al.** and **Guiberson et al.** do not expressly teach manipulating the display of data collected while data continues to be collected. **Eryilmaz et al.** teaches manipulating the display of data collected while data continues to be collected (Page 2, Para 0026, L3-11; Page 2, Para 0029, L1-12).

Per claim 23: **McLean et al.** and **Guiberson et al.** do not expressly teach providing an interface having a communication port for communicating with each of the two or more data modules. **Eryilmaz et al.** teaches providing an interface having a communication port for communicating with each of the two or more data modules (Fig. 1, Items 28 and 40; Page 3, Para 0039, L1-8; Page 4, Para 0044, L13-16).

Per claim 24: **McLean et al.** and **Guiberson et al.** do not expressly teach directing a review of data collected by the two or more data collection instruments by utilizing a review

function. **Eryilmaz et al.** teaches directing a review of data collected by the two or more data collection instruments by utilizing a review function (Page 4, Para 0041, L5-7).

Per claim 25: **McLean et al.** and **Guiberson et al.** do not expressly teach defining data history parameters utilizing a data history function. **Eryilmaz et al.** teaches defining data history parameters utilizing a data history function (Page 2, Para 0017; Fig. 3; Page 2, Para 0029, L6-12; Pages 2 and 3, Para 0030; Page 3, Para 0040, L5-7; Page 4, Para 0043, L6-8; Page 4, Para 0043, L14-22).

Per claim 31: **McLean et al.** and **Guiberson et al.** do not expressly teach utilizing an event based trigger to initiate a data module action. **Eryilmaz et al.** teaches utilizing an event based trigger to initiate a data module action (Fig. 2, Item 75; Page 3, Para 0040, L5-7).

Per claim 32: **McLean et al.** and **Guiberson et al.** do not expressly teach that the simulation environment comprises at least one of a graphical, textual, data flow, time based, and event based environments. **Eryilmaz et al.** teaches that the simulation environment comprises at least one of a graphical, textual, data flow, time based, and event based environments (Page 2, Para 0026, L1-7; Page 2, Para 0025, L1-4).

Per claim 33: **McLean et al.** and **Guiberson et al.** do not expressly teach that the two or more data modules are virtually formed using at least one of MATLAB, JAVA, C++, and object-oriented code. **Eryilmaz et al.** teaches that the two or more data modules are virtually

formed using at least one of MATLAB, JAVA, C++, and object-oriented code (Page 1, Para 0013, L4-8; Page 2, Para 0026, L8-16; Page 2, Para 0028, L1-6; Page 3, Para 0031, L1-5).

Per claim 34: **McLean et al.** and **Guiberson et al.** do not expressly teach that the two or more data modules provide displays in the form of at least one of textual, graphical, multi -dimensional, oscilloscope, and spectrum analyzer. **Eryilmaz et al.** teaches that the two or more data modules provide displays in the form of at least one of textual, graphical, multi -dimensional, oscilloscope, and spectrum analyzer (Page 3, Para 0031, L1-5; Page 1, Para 0002, L3-6; Page 1, Para 0009, L3-7; Page 1, Para 0012; Page 2, Para 0026, L3-15; Page 3 Para 0037, L3-10; Page 3 Para 0038).

11.3 As per claim 38, **McLean et al.** and **Guiberson et al.** teach the method of claim 37. **Guiberson et al.** teaches that data continues to be collected without updating the display (Fig. 4, Item 410 and 415; CL1, L22-29; CL4, L58-60).

McLean et al. and **Guiberson et al.** do not expressly providing the display of data collected while data continues to be collected. **Eryilmaz et al.** teaches providing the display of data collected while data continues to be collected (Page 4, Para 0041, L5-7).

11.4 As per claim 78, it is rejected based on the same reasoning as claim 3, supra. Claims 78 is a computer medium claims reciting the same limitations as claims 3, as taught throughout by **McLean et al., Guiberson et al.** and **Eryilmaz et al.**

12. Claims 4, 6-8, 14-17, 39-42, 48-51, 79, 81-83 and 89-92 are rejected under 35 U.S.C. 103(a) as being unpatentable over **McLean et al.** ("Applying temporal data bases to HLA data collection and analysis", 1998 Winter simulation conference) in view of **Eryilmaz et al.** (U.S. Patent Application 2003/0122826).

Per claim 4: **McLean et al.** does not expressly teach manipulating the display of data collected while data continues to be collected. **Eryilmaz et al.** teaches manipulating the display of data collected while data continues to be collected (Page 2, Para 0026, L3-11; Page 2, Para 0029, L1-12).

Per claim 6: **McLean et al.** does not expressly teach providing an interface having a communication port for communicating with each of the two or more data modules. **Eryilmaz et al.** teaches providing an interface having a communication port for communicating with each of the two or more data modules (Fig. 1, Items 28 and 40; Page 3, Para 0039, L1-8; Page 4, Para 0044, L13-16).

Per claim 7: **McLean et al.** does not expressly teach directing a review of data collected by the two or more data collection instruments by utilizing a review function. **Eryilmaz et al.** teaches directing a review of data collected by the two or more data collection instruments by utilizing a review function (Page 4, Para 0041, L5-7).

Per claim 8: **McLean et al.** does not expressly teach defining data history parameters utilizing a data history function. **Eryilmaz et al.** teaches defining data history parameters utilizing a data history function (Page 2, Para 0017; Fig. 3; Page 2, Para 0029, L6-12; Pages 2 and 3, Para 0030; Page 3, Para 0040, L5-7; Page 4, Para 0043, L6-8; Page 4, Para 0043, L14-22).

Per claim 14: **McLean et al.** does not expressly teach utilizing an event based trigger to initiate a data module action. **Eryilmaz et al.** teaches utilizing an event based trigger to initiate a data module action (Fig. 2, Item 75; Page 3, Para 0040, L5-7).

Per claim 15: **McLean et al.** does not expressly teach that the simulation environment comprises at least one of a graphical, textual, data flow, time based, and event based environments. **Eryilmaz et al.** teaches that the simulation environment comprises at least one of a graphical, textual, data flow, time based, and event based environments (Page 2, Para 0026, L1-7; Page 2, Para 0025, L1-4).

Per claim 16: **McLean et al.** does not expressly teach that the two or more data modules are virtually formed using at least one of MATLAB, JAVA, C++, and object-oriented code. **Eryilmaz et al.** teaches that the two or more data modules are virtually formed using at least one of MATLAB, JAVA, C++, and object-oriented code (Page 1, Para 0013, L4-8; Page 2, Para 0026, L8-16; Page 2, Para 0028, L1-6; Page 3, Para 0031, L1-5).

Per claim 17: **McLean et al.** does not expressly teach that the two or more data modules provide displays in the form of at least one of textual, graphical, multi -dimensional, oscilloscope, and spectrum analyzer. **Eryilmaz et al.** teaches that the two or more data modules provide displays in the form of at least one of textual, graphical, multi -dimensional, oscilloscope, and spectrum analyzer (Page 3, Para 0031, L1-5; Page 1, Para 0002, L3-6; Page 1, Para 0009, L3-7; Page 1, Para 0012; Page 2, Para 0026, L3-15; Page 3 Para 0037, L3-10; Page 3 Para 0038).

Per claim 39: **McLean et al.** does not expressly teach manipulating the display of data collected while data continues to be collected. **Eryilmaz et al.** teaches manipulating the display of data collected while data continues to be collected (Page 2, Para 0026, L3-11; Page 2, Para 0029, L1-12).

Per claim 40: **McLean et al.** does not expressly teach providing an interface having a communication port for communicating with each of the two or more data modules. **Eryilmaz et al.** teaches providing an interface having a communication port for communicating with each of the two or more data modules (Fig. 1, Items 28 and 40; Page 3, Para 0039, L1-8; Page 4, Para 0044, L13-16).

Per claim 41: **McLean et al.** does not expressly teach directing a review of data collected by the two or more data collection instruments by utilizing a review function. **Eryilmaz et al.**

teaches directing a review of data collected by the two or more data collection instruments by utilizing a review function (Page 4, Para 0041, L5-7).

Per claim 42: **McLean et al.** does not expressly teach defining data history parameters utilizing a data history function. **Eryilmaz et al.** teaches defining data history parameters utilizing a data history function (Page 2, Para 0017; Fig. 3; Page 2, Para 0029, L6-12; Pages 2 and 3, Para 0030; Page 3, Para 0040, L5-7; Page 4, Para 0043, L6-8; Page 4, Para 0043, L14-22).

Per claim 48: **McLean et al.** does not expressly teach utilizing an event based trigger to initiate a data module action. **Eryilmaz et al.** teaches utilizing an event based trigger to initiate a data module action (Fig. 2, Item 75; Page 3, Para 0040, L5-7).

Per claim 49: **McLean et al.** does not expressly teach that the simulation environment comprises at least one of a graphical, textual, data flow, time based, and event based environments. **Eryilmaz et al.** teaches that the simulation environment comprises at least one of a graphical, textual, data flow, time based, and event based environments (Page 2, Para 0026, L1-7; Page 2, Para 0025, L1-4).

Per claim 50: **McLean et al.** does not expressly teach that the two or more data modules are virtually formed using at least one of MATLAB, JAVA, C++, and object-oriented code. **Eryilmaz et al.** teaches that the two or more data modules are virtually formed using at least one

of MATLAB, JAVA, C++, and object-oriented code (Page 1, Para 0013, L4-8; Page 2, Para 0026, L8-16; Page 2, Para 0028, L1-6; Page 3, Para 0031, L1-5).

Per claim 51: **McLean et al.** does not expressly teach that the two or more data modules provide displays in the form of at least one of textual, graphical, multi -dimensional, oscilloscope, and spectrum analyzer. **Eryilmaz et al.** teaches that the two or more data modules provide displays in the form of at least one of textual, graphical, multi -dimensional, oscilloscope, and spectrum analyzer (Page 3, Para 0031, L1-5; Page 1, Para 0002, L3-6; Page 1, Para 0009, L3-7; Page 1, Para 0012; Page 2, Para 0026, L3-15; Page 3 Para 0037, L3-10; Page 3 Para 0038).

Per claim 79: **McLean et al.** does not expressly teach manipulating the display of data collected while data continues to be collected. **Eryilmaz et al.** teaches manipulating the display of data collected while data continues to be collected (Page 2, Para 0026, L3-11; Page 2, Para 0029, L1-12).

12.1 As per claims 81-83 and 89-92, these are rejected based on the same reasoning as claims 6-8 and 14-17, supra. Claims 81-83 and 89-92 are computer medium claims reciting the same limitations as claims 6-8 and 14-17, as taught throughout by **Eryilmaz et al.** and **Guiberson et al.**

13. Claims 9, 43 and 84 are rejected under 35 U.S.C. 103(a) as being unpatentable over **McLean et al.** ("Applying temporal data bases to HLA data collection and analysis", 1998 Winter simulation conference) in view of **Chen et al.** (U.S. Patent 5,684,945), and further in view of **Mikurak** (U.S. Patent 7,130,807).

13.1 As per claim 9, **McLean et al.** teaches the method of claim 8. **McLean et al.** does not expressly teach the data history parameters comprise at least one of amount of data history, amount of memory allocation for storing data history, types of data collected, signal attributes. **Chen et al.** teaches the data history parameters comprise at least one of amount of data history, amount of memory allocation for storing data history, types of data collected, signal attributes (CL23, L31-34). It would have been obvious to one of ordinary skill in the art at the time of Applicant's invention to modify the method of **McLean et al.** with the method of **Chen et al.** that included the data history parameters comprising at least one of amount of data history, amount of memory allocation for storing data history, types of data collected, signal attributes, because that would allow actual values of data parameters to be kept according to the history property (CL23, L37-39).

McLean et al. and **Chen et al.** do not expressly teach that the data history parameters comprise at least one of data formats. **Mikurak** teaches that the data history parameters comprise at least one of data formats (CL29, L52-57). It would have been obvious to one of ordinary skill in the art at the time of Applicant's invention to modify the method of **McLean et al.** and **Chen et al.** with the method of **Mikurak** that included that the data history parameters comprising at

least one of data formats, because that would allow data to be presented in the form that could be recognized and manipulated (CL23, L37-39).

13.2 As per claim 43, **McLean et al.** teaches the method of claim 42. **McLean et al.** does not expressly teach the data history parameters comprise at least one of amount of data history, amount of memory allocation for storing data history, types of data collected, signal attributes. **Chen et al.** teaches the data history parameters comprise at least one of amount of data history, amount of memory allocation for storing data history, types of data collected, signal attributes (CL23, L31-34).

McLean et al. and **Chen et al.** do not expressly teach that the data history parameters comprise at least one of data formats. **Mikurak** teaches that the data history parameters comprise at least one of data formats (CL29, L52-57).

13.3 As per claim 84, it is rejected based on the same reasoning as claim 9, supra. Claim 84 is a computer medium claim reciting the same limitations as claim 9 supra, as taught throughout by **McLean et al., Chen et al.** and **Mikurak.**

14. Claims 10, 44 and 85 are rejected under 35 U.S.C. 103(a) as being unpatentable over **McLean et al.** ("Applying temporal data bases to HLA data collection and analysis", 1998 Winter simulation conference) in view of **Herbrich et al.** (U.S. Patent Application 2004/0266526).

14.1 As per claim 10, **McLean et al.** teaches the method of claim 1. **McLean et al.** does not expressly teach directing a buffering mode to be utilized during data collection from one of a circular buffering mode, a finite buffering mode, and a buffer extension mode by executing a data buffering mode function. **Herbrich et al.** teaches directing a buffering mode to be utilized during data collection from one of a circular buffering mode, a finite buffering mode, and a buffer extension mode by executing a data buffering mode function (Fig. 3; Page 3, Para 0041, L1-6 and L9-15; Page 3, Para 0042, L1-2; Fig. 5; Pages 3 and 4, Para 0046; Page 4, Para 0047, L1-2). It would have been obvious to one of ordinary skill in the art at the time of Applicant's invention to modify the method of **McLean et al.** with the method of **Herbrich et al.** that included directing a buffering mode to be utilized during data collection from one of a circular buffering mode, a finite buffering mode, and a buffer extension mode by executing a data buffering mode function, because that would allow a previously stored control value to be extracted from a location in the buffer indicated by the next buffer (Pages 3 and 4, Para 0046, L3-6).

14.2 As per claim 44, **McLean et al.** teaches the method of claim 36. **McLean et al.** does not expressly teach directing a buffering mode to be utilized during data collection from one of a circular buffering mode, a finite buffering mode, and a buffer extension mode by executing a data buffering mode function. **Herbrich et al.** teaches directing a buffering mode to be utilized during data collection from one of a circular buffering mode, a finite buffering mode, and a buffer extension mode by executing a data buffering mode function (Fig. 3; Page 3, Para 0041,

L1-6 and L9-15; Page 3, Para 0042, L1-2; Fig. 5; Pages 3 and 4, Para 0046; Page 4, Para 0047, L1-2).

14.3 As per claim 85, it is rejected based on the same reasoning as claim 10, supra. Claim 85 is a computer medium claim reciting the same limitations as claim 10 supra, as taught throughout by **McLean et al.** and **Herbrich et al.**

15. Claims 11, 45 and 86 are rejected under 35 U.S.C. 103(a) as being unpatentable over **McLean et al.** ("Applying temporal data bases to HLA data collection and analysis", 1998 Winter simulation conference) in view of **Chen et al.** (U.S. Patent 5,684,945).

15.1 As per claim 11, **McLean et al.** teaches the method of claim 1. **McLean et al.** does not expressly teach a user utilizing a scroll function to scroll through previously collected data while the dynamic system model is operating. **Chen et al.** teaches a user utilizing a scroll function to scroll through previously collected data while the dynamic system model is operating (CL23, L40-46).

15.2 As per claim 45, **McLean et al.** teaches the method of claim 36. **McLean et al.** does not expressly teach a user utilizing a scroll function to scroll through previously collected data while the dynamic system model is operating. **Chen et al.** teaches a user utilizing a scroll function to scroll through previously collected data while the dynamic system model is operating (CL23, L40-46).

15.3 As per claim 86, it is rejected based on the same reasoning as claim 11, supra. Claim 86 is a computer medium claim reciting the same limitations as claim 11 supra, as taught throughout by **McLean et al.** and **Chen et al.**

16. Claims 12, 46 and 87 are rejected under 35 U.S.C. 103(a) as being unpatentable over **McLean et al.** ("Applying temporal data bases to HLA data collection and analysis", 1998 Winter simulation conference) in view of **Coburn et al.** (U.S. Patent Application 2004/0128120).

16.1 As per claim 12, **McLean et al.** teaches the method of claim 1. **McLean et al.** does not expressly teach providing a time tracking function that directs a graphical display indication of a time history of data collected. **Coburn et al.** teaches providing a time tracking function that directs a graphical display indication of a time history of data collected (Page 4, Para 0052, L7-11). It would have been obvious to one of ordinary skill in the art at the time of Applicant's invention to modify the method of **McLean et al.** with the method of **Coburn et al.** that included providing a time tracking function that directs a graphical display indication of a time history of data collected, because that would allow a movie illustrating a mechanical assembly line of a manufacturing facility to be shown in three dimensions in the virtual world to illustrate the system operation (Page 4, Para 0052, L1-4).

16.2 As per claim 46, **McLean et al.** teaches the method of claim 36. **McLean et al.** does not expressly teach providing a time tracking function that directs a graphical display indication of a time history of data collected. **Coburn et al.** teaches providing a time tracking function that directs a graphical display indication of a time history of data collected (Page 4, Para 0052, L7-11).

16.3 As per claim 87, it is rejected based on the same reasoning as claim 12, supra. Claim 87 is a computer medium claim reciting the same limitations as claim 12 supra, as taught throughout by **McLean et al.** and **Coburn et al.**

17. Claims 13, 47 and 88 are rejected under 35 U.S.C. 103(a) as being unpatentable over **McLean et al.** ("Applying temporal data bases to HLA data collection and analysis", 1998 Winter simulation conference) in view of **Mikurak** (U.S. Patent 7,130,807).

17.1 As per claim 13, **McLean et al.** teaches the method of claim 1. **McLean et al.** teaches synchronizing the two or more data modules comprises conveying to the selected of the two or more data modules a direction to synchronize execution of one or more functions at the selected of the two or more data modules (Page 831, CL1, Para 1, L1-4).

McLean et al. does not expressly teach that synchronizing the two or more data modules comprises conveying to the selected of the two or more data modules a direction to synchronize execution of one or more functions at the selected of the two or more data modules by utilizing a broadcasting function. **Mikurak** teaches that synchronizing the two or more data modules

comprises conveying to the selected of the two or more data modules a direction to synchronize execution of one or more functions at the selected of the two or more data modules by utilizing a broadcasting function (CL137, L10-12).

17.2 As per claim 47, **McLean et al.** teaches the method of claim 36. **McLean et al.** teaches synchronizing the two or more data modules comprises conveying to the selected of the two or more data modules a direction to synchronize execution of one or more functions at the selected of the two or more data modules (Page 831, CL1, Para 1, L1-4).

McLean et al. does not expressly teach that synchronizing the two or more data modules comprises conveying to the selected of the two or more data modules a direction to synchronize execution of one or more functions at the selected of the two or more data modules by utilizing a broadcasting function. **Mikurak** teaches that synchronizing the two or more data modules comprises conveying to the selected of the two or more data modules a direction to synchronize execution of one or more functions at the selected of the two or more data modules by utilizing a broadcasting function (CL137, L10-12).

17.3 As per claim 88, it is rejected based on the same reasoning as claim 13, supra. Claim 88 is a computer medium claim reciting the same limitations as claim 13 supra, as taught throughout by **McLean et al.** and **Mikurak.**

18. Claim 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over **McLean et al.** ("Applying temporal data bases to HLA data collection and analysis", 1998 Winter simulation

conference) in view of **Guiberson et al.** (U.S. Patent 6,088,029), and further in view of **Eryilmaz et al.** (U.S. Patent Application 2003/0122826), **Chen et al.** (U.S. Patent 5,684,945), and further in view of **Mikurak** (U.S. Patent 7,130,807).

18.1 As per claim 26, **McLean et al., Guiberson et al.** and **Eryilmaz et al.** teach the method of claim 25. **McLean et al., Guiberson et al.** and **Eryilmaz et al.** do not expressly teach the data history parameters comprise at least one of amount of data history, amount of memory allocation for storing data history, types of data collected, signal attributes. **Chen et al.** teaches the data history parameters comprise at least one of amount of data history, amount of memory allocation for storing data history, types of data collected, signal attributes (CL23, L31-34).

McLean et al., Guiberson et al., Eryilmaz et al. and **Chen et al.** do not expressly teach that the data history parameters comprise at least one of data formats. **Mikurak** teaches that the data history parameters comprise at least one of data formats (CL29, L52-57).

19. Claim 27 is rejected under 35 U.S.C. 103(a) as being unpatentable over **McLean et al.** ("Applying temporal data bases to HLA data collection and analysis", 1998 Winter simulation conference) in view of **Guiberson et al.** (U.S. Patent 6,088,029), and further in view of **Herbrich et al.** (U.S. Patent Application 2004/0266526).

19.1 As per claim 27, **McLean et al.** and **Guiberson et al.** teach the method of claim 19. **McLean et al.** and **Guiberson et al.** do not expressly teach directing a buffering mode to be utilized during data collection from one of a circular buffering mode, a finite buffering mode,

and a buffer extension mode by executing a data buffering mode function. **Herbrich et al.** teaches directing a buffering mode to be utilized during data collection from one of a circular buffering mode, a finite buffering mode, and a buffer extension mode by executing a data buffering mode function (Fig. 3; Page 3, Para 0041, L1-6 and L9-15; Page 3, Para 0042, L1-2; Fig. 5; Pages 3 and 4, Para 0046; Page 4, Para 0047, L1-2).

20. Claim 28 is rejected under 35 U.S.C. 103(a) as being unpatentable over **McLean et al.** ("Applying temporal data bases to HLA data collection and analysis", 1998 Winter simulation conference) in view of **Guiberson et al.** (U.S. Patent 6,088,029), and further in view of **Chen et al.** (U.S. Patent 5,684,945).

20.1 As per claim 28, **McLean et al.** and **Guiberson et al.** teach the method of claim 19. **McLean et al.** and **Guiberson et al.** do not expressly teach a user utilizing a scroll function to scroll through previously collected data while the dynamic system model is operating. **Chen et al.** teaches a user utilizing a scroll function to scroll through previously collected data while the dynamic system model is operating (CL23, L40-46).

21. Claim 29 is rejected under 35 U.S.C. 103(a) as being unpatentable over **McLean et al.** ("Applying temporal data bases to HLA data collection and analysis", 1998 Winter simulation conference) in view of **Guiberson et al.** (U.S. Patent 6,088,029), and further in view of **Coburn et al.** (U.S. Patent Application 2004/0128120).

21.1 As per claim 29, **McLean et al.** and **Guiberson et al.** teach the method of claim 19. **McLean et al.** and **Guiberson et al.** do not expressly teach providing a time tracking function that directs a graphical display indication of a time history of data collected. **Coburn et al.** teaches providing a time tracking function that directs a graphical display indication of a time history of data collected (Page 4, Para 0052, L7-11).

22. Claim 30 is rejected under 35 U.S.C. 103(a) as being unpatentable over **McLean et al.** ("Applying temporal data bases to HLA data collection and analysis", 1998 Winter simulation conference) in view of **Guiberson et al.** (U.S. Patent 6,088,029), and further in view of **Mikurak** (U.S. Patent 7,130,807).

22.1 As per claim 30, **McLean et al.** and **Guiberson et al.** teach the method of claim 19. **McLean et al.** teaches synchronizing the two or more data modules comprises conveying to the selected of the two or more data modules a direction to synchronize execution of one or more functions at the selected of the two or more data modules (Page 831, CL1, Para 1, L1-4).

McLean et al. and **Guiberson et al.** do not expressly teach that synchronizing the two or more data modules comprises conveying to the selected of the two or more data modules a direction to synchronize execution of one or more functions at the selected of the two or more data modules by utilizing a broadcasting function. **Mikurak** teaches that synchronizing the two or more data modules comprises conveying to the selected of the two or more data modules a direction to synchronize execution of one or more functions at the selected of the two or more data modules by utilizing a broadcasting function (CL137, L10-12).

23. Claims 53, 57-60, 66-70 and 75 rejected under 35 U.S.C. 103(a) as being unpatentable over **Eryilmaz et al.** (U.S. Patent Application 2003/0122826) in view of **McLean et al.** ("Applying temporal data bases to HLA data collection and analysis", 1998 Winter simulation conference).

23.1 As per claim 53, **Eryilmaz et al.** teaches a method for controlling collection of data generated by a dynamic system (Fig. 1, Items 28 and 46; Page 1, Para 0005, L1-3; Page 1, Para 0012; Page 1, Para 0015; Page 2, Para 0023, L6-9; Page 3, Para 0037, L3-10; Page 4, Para 0047, L1-15; Page 2, Para 0023; Page 4, Para 0045, L1-7), comprising:

providing the dynamic system (Page 1, Para 0002; Page 4, Para 0047, L1-15);

providing a controller system separate from the dynamic system, the controller system including at least one controller and two or more data modules (Fig. 1, Items 18, 22, 28 and 40; Page 2, Para 0024, L1-5; Page 3, Para 0037, L3-10), the two or more data modules being communicatively coupled to receive data from the dynamic system model (Fig. 1, Items 22, 28 and 40; Page 3, Para 0037, L3-7);

activating the dynamic system, thereby generating data (Fig. 1, Items 16; Page 4, Para 0046, L2-7; Page 4, Para 0047, L1-15).

Eryilmaz et al. does not expressly teach synchronizing data collection from the dynamic system model by the two or more data modules using the at least one controller. **McLean et al.** teaches synchronizing data collection from the dynamic system model by the two or more data

modules using the at least one controller (Page 827, CL2, Para 2, L1-6; Page 828, CL1, Para 2, L1-4; Page 829, CL1, Para 2).

Per claim 57: **Eryilmaz et al.** teaches executing a suspend function to pause collection of data while the dynamic system continues to operate (Page 3, Para 0040, L5-7).

Per claim 58: **Eryilmaz et al.** teaches providing an interface having a communication port for communicating with each of the two or more data modules (Fig. 1, Items 28 and 40; Page 3, Para 0039, L1-8; Page 4, Para 0044, L13-16).

Per claim 59: **Eryilmaz et al.** teaches directing a review of data collected by the two or more data collection instruments by utilizing a review function (Page 4, Para 0041, L5-7).

Per claim 60: **Eryilmaz et al.** teaches a user defining data history parameters utilizing a data history function (Page 2, Para 0017; Fig. 3; Page 2, Para 0029, L6-12; Pages 2 and 3, Para 0030; Page 3, Para 0040, L5-7; Page 4, Para 0043, L6-8; Page 4, Para 0043, L14-22).

Per claim 66: **Eryilmaz et al.** teaches utilizing an event based trigger to initiate a data module action (Fig. 2, Item 75; Page 3, Para 0040, L5-7).

Per claim 67: **Eryilmaz et al.** teaches that the simulation environment comprises at least one of a graphical, textual, data flow, time based, and event based environments (Page 2, Para 0026, L1-7; Page 2, Para 0025, L1-4).

Per claim 68: **Eryilmaz et al.** teaches that the two or more data modules are virtually formed using at least one of MATLAB, JAVA, C++, object-oriented code, and computer code (Page 1, Para 0013, L4-8; Page 2, Para 0026, L8-16; Page 2, Para 0028, L1-6; Page 3, Para 0031, L1-5).

Per claim 69: **Eryilmaz et al.** teaches that the two or more data modules provide displays in the form of at least one of textual, graphical, multi -dimensional, oscilloscope, and spectrum analyzer (Page 3, Para 0031, L1-5; Page 1, Para 0002, L3-6; Page 1, Para 0009, L3-7; Page 1, Para 0012; Page 2, Para 0026, L3-15; Page 3 Para 0037, L3-10; Page 3 Para 0038).

Per claim 70: **Eryilmaz et al.** teaches that the dynamic system is at least one of a virtual system and a physical system (Fig. 1, Items 28 and 46; Page 1, Para 0005, L1-3; Page 1, Para 0012; Page 1, Para 0015; Page 2, Para 0023, L6-9; Page 3, Para 0037, L3-10; Page 4, Para 0047, L1-15; Page 2, Para 0023; Page 4, Para 0045, L1-7).

23.2 As per claim 75, **Eryilmaz et al.** teaches a system for controlling collection of data generated by a dynamic system (Fig. 1, Items 28 and 46; Page 1, Para 0005, L1-3; Page 1, Para 0012; Page 1, Para 0015; Page 2, Para 0023, L6-9; Page 3, Para 0037, L3-10; Page 4, Para 0047, L1-15), comprising:

the dynamic system provided in a simulation application and configured to generate the data (Page 1, Para 0002; Page 4, Para 0047, L1-15);

a controller system separate from the dynamic system, the controller system including at least one controller and two or more data modules (Fig. 1, Items 18, 22, 28 and 40; Page 2, Para

0024, L1-5; Page 3, Para 0037, L3-10), the two or more data modules being communicatively coupled to receive data from the dynamic system (Fig. 1, Items 22, 28 and 40; Page 3, Para 0037, L3-7).

Eryilmaz et al. does not expressly teach that the data collection from the dynamic system model by the two or more data modules is synchronized using the at least one controller. **McLean et al.** teaches that the data collection from the dynamic system model by the two or more data modules is synchronized using the at least one controller (Page 827, CL2, Para 2, L1-6; Page 828, CL1, Para 2, L1-4; Page 829, CL1, Para 2).

24. Claims 54-56 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Eryilmaz et al.** (U.S. Patent Application 2003/0122826) in view of **McLean et al.** ("Applying temporal data bases to HLA data collection and analysis", 1998 Winter simulation conference), and further in view of **Guiberson et al.** (U.S. Patent 6,088,029).

24.1 As per claim 54, **Eryilmaz et al.** and **McLean et al.** teach the method of claim 53. **Eryilmaz et al.** and **McLean et al.** do not expressly teach executing a snapshot function to direct at least one of the two or more data modules to freeze a display of data collected while the dynamic system model continues to execute and the data continues to be collected. **Guiberson et al.** teaches executing a snapshot function to direct at least one of the two or more data modules to freeze a display of data collected while the dynamic system model continues to execute and the data continues to be collected (Fig. 4, Item 410; CL1, L22-29; CL4, L58-60).

24.2 As per claim 55, **Eryilmaz et al., McLean et al.** and **Guiberson et al.** teach the method of claim 54. **Eryilmaz et al.** teaches a user reviewing the display of data collected while data continues to be collected (Page 4, Para 0041, L5-7). **Eryilmaz et al.** and **McLean et al.** do not expressly a user reviewing the display of data collected while data continues to be collected without updating the display. **Guiberson et al.** teaches a user reviewing the display of data collected while data continues to be collected without updating the display (Fig. 4, Item 410 and 415; CL1, L22-29; CL4, L58-60).

Per claim 56: **Eryilmaz et al.** teaches a user manipulating the display of data collected while data continues to be collected (Page 2, Para 0026, L3-11; Page 2, Para 0029, L1-12).

25. Claim 61 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Eryilmaz et al.** (U.S. Patent Application 2003/0122826) in view of **McLean et al.** ("Applying temporal data bases to HLA data collection and analysis", 1998 Winter simulation conference), and further in view of **Chen et al.** (U.S. Patent 5,684,945) and **Mikurak** (U.S. Patent 7,130,807).

25.1 As per claim 61, **Eryilmaz et al.** and **McLean et al.** teach the method of claim 60. **Eryilmaz et al.** and **McLean et al.** do not expressly teach the data history parameters comprise at least one of amount of data history, amount of memory allocation for storing data history, types of data collected, signal attributes. **Chen et al.** teaches the data history parameters

comprise at least one of amount of data history, amount of memory allocation for storing data history, types of data collected, signal attributes (CL23, L31-34).

Eryilmaz et al., McLean et al. and **Chen et al.** do not expressly teach that the data history parameters comprise at least one of data formats. **Mikurak** teaches that the data history parameters comprise at least one of data formats (CL29, L52-57).

26. Claim 62 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Eryilmaz et al.** (U.S. Patent Application 2003/0122826) in view of **McLean et al.** ("Applying temporal data bases to HLA data collection and analysis", 1998 Winter simulation conference), and further in view of **Herbrich et al.** (U.S. Patent Application 2004/0266526).

26.1 As per claim 62, **Eryilmaz et al.** and **McLean et al.** teach the method of claim 53. **Eryilmaz et al.** and **McLean et al.** do not expressly teach directing a buffering mode to be utilized during data collection from one of a circular buffering mode, a finite buffering mode, and a buffer extension mode by executing a data buffering mode function. **Herbrich et al.** teaches directing a buffering mode to be utilized during data collection from one of a circular buffering mode, a finite buffering mode, and a buffer extension mode by executing a data buffering mode function (Fig. 3; Page 3, Para 0041, L1-6 and L9-15; Page 3, Para 0042, L1-2; Fig. 5; Pages 3 and 4, Para 0046; Page 4, Para 0047, L1-2).

27. Claim 63 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Eryilmaz et al.** (U.S. Patent Application 2003/0122826) in view of **McLean et al.** ("Applying temporal data

bases to HLA data collection and analysis", 1998 Winter simulation conference), and further in view of **Chen et al.** (U.S. Patent 5,684,945).

27.1 As per claim 63, **Eryilmaz et al.** and **McLean et al.** teach the method of claim 53. **Eryilmaz et al.** and **McLean et al.** do not expressly teach a user utilizing a scroll function to scroll through previously collected data while the dynamic system model is operating. **Chen et al.** teaches a user utilizing a scroll function to scroll through previously collected data while the dynamic system model is operating (CL23, L40-46).

28. Claim 64 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Eryilmaz et al.** (U.S. Patent Application 2003/0122826) in view of **McLean et al.** ("Applying temporal data bases to HLA data collection and analysis", 1998 Winter simulation conference), and further in view of **Coburn et al.** (U.S. Patent Application 2004/0128120).

28.1 As per claim 64, **Eryilmaz et al.** and **McLean et al.** teach the method of claim 53. **Eryilmaz et al.** and **McLean et al.** do not expressly teach providing a time tracking function that directs a graphical display indication of a time history of data collected. **Coburn et al.** teaches providing a time tracking function that directs a graphical display indication of a time history of data collected (Page 4, Para 0052, L7-11).

29. Claim 65 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Eryilmaz et al.** (U.S. Patent Application 2003/0122826) in view of **McLean et al.** ("Applying temporal data

bases to HLA data collection and analysis", 1998 Winter simulation conference) and further in view of **Mikurak** (U.S. Patent 7,130,807).

29.1 As per claim 65, **Eryilmaz et al.** and **McLean et al.** teach the method of claim 53. **Eryilmaz et al.** and **McLean et al.** teach synchronizing the two or more data modules comprises conveying to the selected of the two or more data modules a direction to synchronize execution of one or more functions at the selected of the two or more data modules (Fig. 1, Items 22, 28 and 40; Page 1, Para 0005, L1-3; Page 1, Para 0012).

Eryilmaz et al. and **McLean et al.** do not expressly teach that synchronizing the two or more data modules comprises conveying to the selected of the two or more data modules a direction to synchronize execution of one or more functions at the selected of the two or more data modules by utilizing a broadcasting function. **Mikurak** teaches that synchronizing the two or more data modules comprises conveying to the selected of the two or more data modules a direction to synchronize execution of one or more functions at the selected of the two or more data modules by utilizing a broadcasting function (CL137, L10-12).

Response to Arguments

30. Applicant's arguments with respect to 35 USC 102 (e) and 103 (a) rejections filed on November 26, 2007 have been considered and are found to be persuasive. New art rejections are presented in this Office action.

30.1 As per the applicant's argument that "Eryilmaz does not disclose or suggest, "a controller system including at least one controller and two or more data modules"; the use of a controller to synchronize data collection from the dynamic system model by the two or more data modules; the section cited by the Examiner is discussing the use of the adaptive lookup table block to update an associated adaptive lookup table so that it contains current data, it does not discuss the synchronization of the collection of data; there is no discussion of synchronizing the collection of data using a controller and multiple data modules. in Eryilmaz, the collected data is acquired from a physical (real-world) plant and sent to the modeling environment rather than being acquired from the dynamic system model", the Examiner has used a new reference, **McLean et al.**

McLean et al. teaches in a simulation environment, a method for controlling collection of data generated by a dynamic system model (Abstract, Para 1, L6-15), comprising:

providing the dynamic system model (Abstract, Para 1, L4-5);

providing a controller system separate from the dynamic system model, the controller system including at least one controller and two or more data modules, the two or more data modules being communicatively coupled to collect data from the dynamic system model (Abstract, Para 1, L13-15; Page 827, CL1, Para 4, L1 to CL2, Para 1, L12; Page 828, CL1, Para 1, L3-8; Page 828, CL1, Para 2, L1-4; Page 828, CL2, Para 7, L1-7; Page 829, CL1, Para 2);

activating the dynamic system model, thereby generating data (Abstract, Para 1, L6-7; Para 2, L2-4; Page 828, CL2, Para 7, L1-7); and

synchronizing data collection from the dynamic system model by the two or more data modules using the at least one controller (Page 827, CL2, Para 2, L1-6; Page 828, CL1, Para 2, L1-4; Page 829, CL1, Para 2).

Conclusion

31. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dr. Kandasamy Thangavelu whose telephone number is 571-272-3717. The examiner can normally be reached on Monday through Friday from 8:00 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Rodriguez, can be reached on 571-272-3753. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to TC 2100 Group receptionist: 571-272-2100.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only.

Q1For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Kandasamy Thangavelu/
Examiner, Art Unit 2123
February 14, 2008